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FEEDING A FAMILY

INEXPENSIVE FAMILY DIETS IN APRIL 1947

(1) *Food Position in the Spring of* 1947

The spring of 1947 was a period of food shortages. The winter had been hard, and vegetables—in particular greens—were dear and scarce. The supply of meat to the butchers had been reduced; this was reflected not only in shortages of sausage meat and sausages but also in the often very small choice of cuts from which the housewife could select her meat ration. At the same time, neither fresh herrings nor kippers were available in Oxford. Even efficient housewives with a fair amount of money to spend on food found it difficult to feed adequately a family of hearty eaters if no meals were purchased away from home, and for a poor and inexperienced housewife the problem was even more serious.

Two useful calorific foods were, fortunately, unrationed, *viz.*, oatmeal and barley flakes. Oatmeal, however, is not very popular with Oxford housewives, partly because it requires a considerable time for cooking, and barley flakes, although they make a good milk pudding, yield but a poor substitute for porridge. Yet unless a family diet was supplemented by at least one of these foods there was no means of obtaining a sufficiency of calorific intake at moderate cost, even for a family that included young children whose rations were larger than required by them and which, therefore, could be partly used for augmenting the food supply of the adult members of the family. In our schedule of a ' human needs ' diet, available in Oxford in the second half of April, 1947, we have therefore suggested the consumption of half a pound of barley flakes per head per week.

(2) *A ' Human Needs ' Diet*

This survey is the thirteenth in our series dealing with the cost and the composition of a ' human needs ' diet.[1] The diet has again been compiled for a family of five persons—husband, wife, and three children of school age.[2] As will be seen from Table I, the diet in April, 1947, cost considerably more than did a diet of approximately similar nutritional value in November, 1946, in spite of the fact that the prices of three rationed foods—sugar, cheese, and eggs in shell—had been reduced since, each by approximately 25 per cent. However, the prices of many other of the rationed foods

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[1] The twelfth survey was published in BULLETIN, Vol. 8, No. 12.

[2] Two of the children have been assumed to be between 7 and 12 years old, and one child between 5 and 7 years.

TABLE I. *Weekly 'Human Needs' Diet for a Family of 5 Persons* (Diet A)

	Quantity	Price p. unit[1]		Changes since Nov. 1946 Quantity	Outlay		
		s.	d.			*s.*	*d.*
(*a*) Rational Foods *excl. bread and flour* :							
1a Meat, fresh	4 ℔ 4 oz.	1	2[2]	— 2 ℔ 12 oz.	—		*10*
1b Corned Beef	1 ℔	1	8	+ 1 ℔	+	*1*	*8*
2 Bacon	10 oz.	1	9	— 5 oz.	—		*6½*
3 Margarine	1 ℔ 14 oz.		9	...		...	
4 Cooking Fat	5 oz.	1	0	...	+		*0¾*
5 Sugar	3 ℔ 8 oz.		3	...	—		*3½*
6a Jam	4 oz.	1	1	...		...	
6b Syrup	8 oz.		9[3]	— 8 oz.	—		*3½*
7 Tea	8 oz.	2	8	...		...	
8 Cheese	10 oz.		10	...	—		*2*
9a Eggs, shell	4 eggs		1¾	...	—		*1*
9b Eggs, dried	½ packet[4]	2	6	...	+		*6*
10a Dried Peas, green ...	1 ℔		10	...		...	
10b Haricot Beans ...	1 ℔		9	+ 1 ℔	+		*9*
11 Rolled Oats	8 oz.		5½	— 8 oz.	—		*0¾*
12a Macaroni	1 ℔		10½	+ 8 oz.	+		*6*
12b Semolina	1 ℔		9	— 8 oz.	—		*1½*
13 Dried Fruit[5]	1 ℔		9¼ [2]	+ 1 ℔	+		*9¼*
14a Household Milk ...	...		...	— 1 tin[6]	—		*9*
14b Cond. Milk, skimmed	1 tin[7]		8	+ 1 tin	+		*8*
15 Smoked Herrings ...	2 tins[8]	1	0	+ 2 tins	+	*2*	*0*
Outlay on Group (a) ...		*21*	*7*		+	*3*	*9¼*
(*b*) Fresh Milk :							
16a Ordinary	16½ pt.		4½	+ 1 pt.	+		*4½*
16b School	5 pt.		free	...		...	
Outlay on Group (b)		*6*	*2¼*		+		*4½*
(*c*) Main Carbohydrate Foods :							
17 Bread	21 ℔ 7 oz.		4½	...		...	
18 Flour[9]	2 ℔		3¾	— 1 ℔	—		*1½*
19 Potatoes	21 ℔		1	...		...	
Outlay on Group (c)		*6*	*11¾*		—		*1½*
(*d*) Vegetables, *excl. potatoes* :							
20a Swedes	3 ℔ 8 oz.		3	...	+		*3½*
20b Carrots	3 ℔ 8 oz.		2	...	+		*0¾*
20c Greens	3 ℔		8	— 4 ℔	+		*3*
20d Other[10]	4 ℔		4¼[2]	+ 4 ℔	+	*1*	*4½*
Outlay on Group (d)		*4*	*10*		+	*1*	*11¾*
(*e*) Other Foods							
21 Cocoa	4 oz.		6	...	+		*1*
22 Condiments	...	1	0	...	+		*8*
23 Apples	...		...	— 1 ℔	—		*6*
24 Herrings and Kippers	...		...	— 4 ℔ 8 oz.	—	*2*	*9*
25 Pork Sausage Meat ...	...		...	— 12 oz.	—		*9¾*
26 Barley Flakes ...	2 ℔ 8 oz.		10	+ 2 ℔ 8 oz.	+	*2*	*1*
Outlay on Group (e)		*3*	*7*		—	*1*	*2¾*
Total Outlay on Diet A ...		**43**	**2**		+	**4**	**9¼**

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[1] The price unit is: eggs in shell, one egg; dried eggs, packet; condensed milk, tin; smoked herrings, tin; fresh milk, pint; bread, 1¾ ℔ loaf; cocoa, ¼ ℔; condiments, total outlay; all other foods, ℔. [2] Average price. [3] Bought in 2 ℔ tin. [4] One packet equivalent to 12 eggs. [5] 6 oz. dates, 6 oz. figs, 4 oz. prunes. [6] Equivalent to 4 pints of skimmed fresh milk. [7] Equivalent to 1⅔ pints of skimmed fresh milk with sugar added. [8] One tin containing about 15 oz. fish. [9] Self-raising in April, 1947, plain in November, 1946. [10] 1 ℔ onions, 1 ℔ leeks, 2 ℔ parsnips.

enumerated in Table I had risen. Thus, cooking fat cost 1s. a pound instead of 9d., syrup 9d. instead of 8d. a pound, dried eggs 2s. 6d. a packet instead of 1s. 6d., rolled oats 5½d. instead of 3¾d. a pound, macaroni 10½d. instead of 9d., semolina—in most shops—9d. instead of 7d., prunes 10d. instead of 9d., and a tin of condensed skimmed milk 8d. instead of 5d. A tin of condensed skimmed milk, equivalent to about 1⅔ pints of skimmed fresh milk with sugar added, and a pint of fresh milk,[1] take in our diet schedule for April the place of a tin of Household milk, equivalent to 4 pints of skimmed fresh milk, which was generally available in November, 1946, but not in April, 1947.

Eightpence in the increase in the cost of the diet from November to April, result from a higher allowance for condiments, expenditure on which was put at 4d. in November, 1946, and at 1s. in April, 1947. This increase was made in view of the reduced amount of tasty first-class protein foods—meat, bacon, and fish—in the schedule for April, which had to be counterbalanced by increased quantities of legumes and cereals. These, if they are to be transformed by themselves into appetising meals, require flavourings, such as beef cubes, sauces, and, perhaps for the children, saccharine. For this, 8d. per week is probably rather an underestimate than an over-estimate for a family—even a very poor one—of five persons, in addition to 4d. spent on such basic items as salt, pepper, vinegar, and herbs. In November, 1946, however, these 4 pence covered also the outlay on baking powder, which in our schedule for April is excluded, since there we allowed for the purchase of self-raising flour. All the housewives whom we questioned stated that they rarely bought any other, and the net savings on a pound of flour seemed in any case to represent only about a farthing.

No general rise in the price of meat had occurred from November, 1946, to April, 1947. Notwithstanding this, the average price in our diet schedule has been increased from 10d. a pound to 1s. 2d. An average price of 10d. seemed reasonable so long as a housewife could regularly purchase part of her total meat ration in the form of imported breast of mutton, at about 5d. a pound, and of imported stewing beef, at between 8d. and 10d. a pound. In April, 1947, these cuts were often unobtainable, and very cheap meat in general tended to contain a great amount of bone. On the whole, an average outlay of approximately 1s. 2d. per pound seemed to be the most economical when it was necessary to make the meat ration go as far as possible.

The steepest rise in prices from November, 1946, to April, 1947, occurred for fresh greens. In November these could be purchased at 3d. a pound, while in the second half of April they cost 8d.—sometimes even more, although, on rare occasions, also less. On account of their dearness and scarcity we only included 3 pounds of greens in our schedule for April, replacing the deficiency by other vegetables, *viz.*, onions, leeks, and parsnips, at an average price of 4¼d. per pound. Evens so, the outlay on fresh vegetables excluding potatoes would have been nearly 2s. above that in November, 1946.

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[1] The allowance of fresh milk was 2½ pints per adult per week in November, 1946, and 3 pints in April, 1947.

In order to compensate at least partly for the absence of fresh herrings, kippers, and sausage meat, two tins of Norwegian kippered herrings are included in our schedule for April. For these, 8 ' points ' were required, and there would not have been sufficient ' points ' left for all the other foods in our schedule thus rationed, and also for an exchange of ' points ' into ' B.U.s ' as large as that assumed by us in November, 1946. Hence we reduced the quantity of flour from 3 pounds to 2 pounds, thus requiring for its purchase only 6 ' B.U.s ' instead of 9 ' B.U.s '. The general shortage in the diet of rationed calorific foods has been made up by the inclusion of a substantial amount of barley flakes—2½ pounds—in our schedule.

(3) *Total Cost, and Outlay of ' Points ' and ' Bread Units '*

The total cost of a ' human needs ' diet as set out in Table I was 43s. 2d., *i.e.*, 4s. 9¼d. more than the cost of a diet of approximately the same nutritional value available in November, 1946.[1] This represents a rise in the cost of the diet by 12½ per cent. The index of the cost of food published by the Ministry of Labour had remained unchanged during this period.

The total outlay of ' points ' and ' B.U.s ' on the ' human needs ' diet is analysed in Table II. Of the 40 ' points ' available per week to a family of 5 persons, 34 were required for foods rationed on ' points ', while 6 ' points ' would have been exchanged for ' B.U.s ' in order to enable the purchase of 2 pounds of flour, the family's basic allowance of 49 ' B.U.s '[2] being needed for the purchase of 21 pounds and 7 ounces of bread.[3]

(4) *Modifications of the Basic Diet*

Diets B, C, and D, shown in Table III, represent slight variations of the basic diet A. Diet B was actually cheaper than diet A, but only some of the housewives in Oxford who required an inexpensive diet, would have been able to purchase it. For this schedule, it has been assumed that the housewife could obtain one pound of sausage meat per weak and, on account of this, dispensed with one tin of kippered herrings. This would have given her 4 'points', which would have made possible the purchase of 2 pounds of rolled oats. Rolled oats have a somewhat higher nutritional value than barley flakes, and about 2½ pounds of these could thus have been replaced by the 2 pounds of rolled oats, these latter costing 5½d. per pound and the former 10d. per pound.

If, on the other hand, the housewife chose 1 pound of whiting in lieu of a tin of kippered herrings, she obtained a much less nutritious food, and in order to maintain the same standard of nutrition as that attained by diet A, would have had to expend the 4 ' points ' thus released on a first-class protein food, such as condensed milk. This selection has been made by us for the schedule of diet C, which was 5½d. dearer than our basic diet A.

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[1] The diet for November, 1946, was actually slightly superior to that for April, 1947, as will be seen from the average data of nutritional intake—especially those referring to animal protein—in Table V.

[2] Cf. Table VIII. Eight ' points ', or multiples of them, could be exchanged during a four-weekly rationing period for ' B.U.s,' but no exchange of ' B.U.s ' into ' points ' was permitted.

[3] Representing 12¼ loaves weighing each 1¾ lb.

TABLE II

Foods Rationed on 'Points' and 'B.U.s' in Diet A

	Quantity	Points	B.U.s
Syrup	8 oz.	4[1]	...
Dried Eggs	½ packet	4	...
Dried Peas, green	1 lb	1	...
Haricot Beans	1 lb	2	...
Rolled Oats	8 oz.	1	...
Macaroni	1 lb	2	...
Semolina	1 lb	2	...
Dried Fruit	1 lb	5[2]	...
Cond. Milk, skimmed	1 tin	5	...
Smoked Herrings...	2 tins	8	...
Bread	21 lb 7 oz.	...	49
Flour	2 lb	...	6
Total spent		34	55
Total available		40	49
'Points' changed into 'B.U.s'		*— 6*	*+ 6*

[1] Bought in 2 lb tin (1 lb = 9 'points').
[2] 12 oz. dates and figs: 3 'points'; 4 oz. prunes: 2 'points'.

TABLE III

Weekly Low Cost Diets for a Family of 5 Persons

Diets B, C, and D

	Quantity	Outlay s.	d.	Points	B.U.s
(1) Diet A	**43 2**			**34**	**55**
(2) *Excluding* (Diet B):					
Smoked Herrings	1 tin	1	0	4	—
Barley Flakes	2 lb 8 oz.	2	1	—	—
Including (Diet B):					
Pork Sausage Meat	1 lb	1	1	—	—
Rolled Oats	2 lb		11	4	—
Total Outlay on Diet B		**42**	**1**	**34**	**55**
(3) *Excluding* (Diet C):					
Smoked Herrings...	1 tin	1	0	4	—
Including (Diet C):					
Whiting	1 lb		11	—	—
Cond. Milk, skimmed	0.8 tin		6½	4	—
Total Outlay on Diet C		**43**	**7½**	**34**	**55**
(4) *Excluding* (Diet D):					
Barley Flakes	1 lb 9 oz.	1	3¾	—	—
Bread	7 oz.		1¼	—	1
Including (Diet D):					
Plain Chocolate	1 lb 4 oz.	2	6	—	—
Total Outlay on Diet D		**44**	**3**	**34**	**54**

In diet D we show what would have been the minimum expenditure on a comparable diet if allowance is made for the purchase of the sweets ration. Chocolate is nutritionally the most economical form in which the sweets ration could be thought, and the weekly ration for a family of 5 persons was 1¼ pounds. The consumption of this would reduce the demand for bulky carbohydrate foods, and probably less barley flakes and perhaps also slightly less bread would be consumed. Allowing for this, the net cost of diet D was 44s. 3d., *i.e.*, 1s. 1d. more than the outlay required for diet A.

For diet D, one ' point ' remained unused, but it would have been needed had the pound of dried fruit in the basic diet A been changed to half prunes, and half dates and figs, instead of containing 12 ounces of these latter fruits. In April, 1947, eight ' points ' per pound had to be surrendered for prunes, but only 4 ' points ' for either dates or figs.

TABLE IV *Diet A for 5 Persons : Individual Shares Available*

	Husband	Wife	Child 7—12[1]	Child 5—7
(*a*) Rationed Foods *excluding bread and flour* :				
1a[2] Meat, fresh	1 lb 4 oz.	12 oz.	12 oz.	12 oz.
1b Corned Beef	6 oz.	2 oz.	3½ oz.	1 oz.
2 Bacon	6 oz.	1 oz.	1 oz.	1 oz.
3 Margarine	7 oz.	7 oz.	6 oz.	4 oz.
4 Cooking Fat	2 oz.	1 oz.	¾ oz.	½ oz.
5 Sugar	6 oz.	15 oz.	13 oz.	9 oz.
6a Jam	½ oz.	½ oz.	1 oz.	1 oz.
6b Syrup	1 oz.	1 oz.	2 oz.	2 oz.
8 Cheese	5 oz.	2 oz.	1 oz.	1 oz.
9a Eggs, shell	2 eggs	½ egg	½ egg	½ egg
9b Eggs, dried	1 egg[3]	1 egg[3]	1½ eggs[3]	1 egg[3]
10a Dried Peas	6 oz.	4 oz.	2½ oz.	1 oz.
10b Haricot Beans	5 oz.	4 oz.	2½ oz.	2 oz.
11 Rolled Oats	3 oz.	1 oz.	1½ oz.	1 oz.
12a Macaroni	6 oz.	3 oz.	2½ oz.	2 oz.
12b Semolina	2 oz.	3 oz.	4 oz.	3 oz.
13 Dried Fruit	3 oz.	3 oz.	3½ oz.	3 oz.
14 Condensed Milk	—	—	⅓ tin	⅓ tin
15 Herrings, tinned	10 oz.	10 oz.	4 oz.	2 oz.
(*b*) Fresh Milk :				
16a Ordinary	2½ pt.	3½ pt.	3½ pt.	3½ pt.
16b School	—	—	1⅔ pt.	1⅔ pt.
(*c*) Main Carbohydrate Foods :				
17 Bread[4]	6 lb 12 oz.	5 lb 8 oz.	3 lb 3 oz.	1 lb 15 oz.
18 Flour	12 oz.	6 oz.	6 oz.	2 oz.
19 Potatoes	7 lb	3 lb 15 oz.	3 lb 15 oz.	2 lb 3 oz.
(*d*) Vegetables *excluding potatoes* :				
20a Swedes	1 lb	12 oz.	10 oz.	8 oz.
20b Carrots	8 oz.	12 oz.	12 oz.	12 oz.
20c Greens	10 oz.	9 oz.	10 oz.	9 oz.
20d Onions and Leeks	1 lb	5 oz.	4 oz.	3 oz.
20e Parsnips	4 oz.	8 oz.	8 oz.	4 oz.
(*e*) Other Foods :				
21 Cocoa	—	1 oz.	1 oz.	1 oz.
26 Barley Flakes	4 oz.	12 oz.	8½ oz.	7 oz.

[1] Two children in this age group.

[2] The serial numbers correspond to those in Table I.

[3] Equivalent.

[4] 14 oz. of bread unallotted.

(5) *Individual Shares Available*

Our schedule of a ' human needs ' diet is intended to represent a family diet, *i.e.*, a diet that is shared by a family where most of—if not all—the meals are taken in common. The quantities that might fall to each member, if the food is allotted by an intelligent housewife, are set out in Table IV. Our subdivision into individual shares obviously represents only a rough approximation, and certain foods are clearly interchangeable without serious effects on the nutritional balance.

A family subsisting on a ' human needs ' diet is not likely to divide the food among its members according to scientific rules; the meals will be shared out according to the general custom. We have thus assumed that the husband expects and obtains a large proportion of the ' tasty ' foods, but that the housewife realizes the value of milk and vegetables for the nutrition of the children, and sees that they have generous helpings of both these foods.

In setting out the potential individual intake from diet A, we have left unallotted one small loaf of bread, weighing 14 ounces. This would represent a small reserve available to any member or members of the family requiring additional calories consequent on some extra exertion, such as digging in the garden, swimming, or exceptionally hard housework. As a result of this omission, the calorific intake of all the members of the family, from the shares shown in Table IV, would fall slightly short of their calorie requirements, although the average intake per ' man ' from diet A satisfies these requirements. The respective figures of nutritional intake will be found in Table V. The upper part of Table V states the nutritional requirements as laid down by the Ministry of Health. Both, requirements and intake, are given in net values. In calculating the figures of nutritional intake allowance has been made for losses of vitamin C through cooking,[1] and carotene has been counted as only one-third as efficient as vitamin A. The figures of nutritional intake are based on the data published by the Medical Research Council in 1945.

Table V also compares the average intake per ' man ' per day from diet A with that from a similar diet obtainable in November, 1946, revealing a decline in the content of animal protein by nearly 12 per cent. The average supply of vitamin C, too, was considerably lower in the diet for April, 1947, falling short by nearly 10 per cent of that from the diet in November, 1946.[2]

(6) *Supply of Nutrients from Specific Foods and Food Groups*

The relative intake of nutrients from the several food groups available to

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[1] Greens 75 per cent, and all other vegetables 50 per cent, of the vitamin C contained in the edible part, after trimming.

[2] For those of our readers who want to compare the main data of this survey with those of the earlier surveys in this series, where we only used scales of gross requirements and gross intake, we give the following figures :

	Per ' Man ' per Day		
	Calories	*Protein*	
		animal	*vegetable*
Gross Requirements :	3,300	50	50
Gross Intake : November 1946	3,250	56	51
April 1947	3,250	47	56

The total ' man ' value of the family of 5 persons is, in this context, assumed as 3.75 men,' for both calorie and protein requirements.

TABLE V

Nutritional Requirements and Intake from Diet A

	Per Person per Day				' Man ' Values of Family of 5 Persons[1]	
Nutritional Requirements (Min. of Health Scale) :	Husband	Wife	Child 7—12	Child 5—7		
Calories	3,000	2,500	2,100	1,500	3.73	
Protein, gm.	70	60	65	50	4.43	
Calcium, gm.	0.8	0.8	1.4	1.3	7.13	
Iron, mgm.	10	10	13	8	5.40	
Vitamin A, I.U.... ...	3,000	3,000	3,000	3,000	5.00	
Vitamin B_1, mgm. ...	0.90	0.75	0.95	0.68	4.68	
Vitamin C, mgm. ...	30	30	30	30	5.00	
Individual Intake from Diet A (Table IV) :					Av. Intake per Man[2]	
	Husband	Wife	Child 7—12	Child 5—7	April 1947	Nov. 1946
Calories	2,960	2,480	2,070	1,490	3,000	3,000
Protein, gm.	108.5	82.8	68.3	50.0	86.3	87.1
Calcium, gm.	1.0	0.8	0.9	0.8	0.63	0.64
Iron, mgm.	18	13	11	8	12	11
Vitamin A, I.U.... ...	3,190	3,830	3,860	3,650	3,680	3,790
Vitamin B_1, mgm. ...	1.8	1.3	1.1	8.1	1.4	1.4
Vitamin C, mgm. ...	52	35	37	27	38	42
Animal Protein :						
gm. ...	40.3	29.0	30.6	26.0	35.3	39.8
of protein requirements ...	*57.6%*	*48.3%*	*47.1%*	*52.0%*	*50.4%*	*56.9%*

[1] Husband, wife, 2 children 7—12, 1 child 5—7.

[2] Including 14 oz. of bread not allotted to individual members.

each member of the family, is considered in Table VI. The figures have been derived from the data set out in Table IV, and they supplement the information conveyed by Table V.

In Table V the total intake of protein of the husband and also of the wife is seen to be considerably above their respective basic requirements. Table VI now reveals that round 50 per cent of the protein intake of the wife and 46½ per cent of that of the husband are obtained from the main cheap calorific foods: bread and flour, potatoes, and, in particular as regards the wife's share, barley flakes. This protein will be utilized by the body largely as fuel, in the same way as fats or carbohydrates, which latter can be obtained practically free from protein only in sugar, syrup, honey, and jam. Again, the satisfactory intake of calcium of the husband and wife derives to a considerable extent from their large shares of calcium-fortified bread and flour, while 61 per cent of the husband's total intake of vitamin C depend on his consumption of potatoes.

The figures of intake of calcium from the individual shares show a daily average of one gram for the husband, 0.9 gram for each of the two older children, and 0.8 gram for the wife as well as for the youngest child. The calcium requirements as stated by the Ministry of Health are, for the husband and wife, 0.8 gram per person per day, for each of the two older children, 1.4 grams per day, and for the youngest child, 1.3 grams per day. In their shares of diet A, the total allowance of milk of each of the three children is just over 5⅔ pints per week, including the condensed milk. From this, the

TABLE VI. *Relative Intake of Nutrients from 'Human Needs' Diet* A

	Group *a*	Group *b*	Group *c* *excludg. potatoes*	Potatoes	Group *d*	Group *e*	Total
	(Rationed Foods)			(Unrationed Foods)			
Calories :							
Husband	41.9	4.1	42.2	8.6	1.3	1.9	100.0
Wife	39.6	6.9	38.9	5.8	1.4	7.4	100.0
Child 7—12	44.0	12.1	28.7	6.9	1.7	6.6	100.0
Child 5—7	45.5	16.9	22.7	5.4	1.8	7.7	100.0
Total Diet[1]	42.1	9.3	34.6	6.9	1.5	5.6	100.0
All Protein :							
Husband	45.6	5.9	39.5	5.9	1.9	1.2	100.0
Wife	37.3	10.9	40.0	4.3	2.0	5.5	100.0
Child 7—12	38.0	19.4	29.8	5.3	2.3	5.2	100.0
Child 5—7	37.1	26.8	23.4	4.0	2.6	6.1	100.0
Total Diet[1]	39.4	14.5	34.8	5.0	2.1	4.2	100.0
Animal Protein :							
Husband	84.0	16.0	—	—	—	—	100.0
Wife	69.0	31.0	—	—	—	—	100.0
Child 7—12	56.6	43.4	—	—	—	—	100.0
Child 5—7	48.9	51.1	—	—	—	—	100.0
Total Diet	64.7	35.3	—	—	—	—	100.0
Calcium :							
Husband	32.2	25.1	31.2	3.3	8.0	0.2	100.0
Wife	21.4	40.0	27.5	2.1	8.2	0.8	100.0
Child 7—12	19.0	55.2	15.8	2.0	7.4	0.6	100.0
Child 5—7	18.6	62.4	10.2	1.2	7.0	0.6	100.0
Total Diet[1]	22.1	46.7	21.0	2.1	7.5	0.6	100.0
Iron :							
Husband	54.4	1.2	29.6	8.6	5.6	0.6	100.0
Wife	44.9	2.3	32.4	6.9	6.4	7.1	100.0
Child 7—12	50.8	3.9	23.0	7.9	7.1	7.3	100.0
Child 5—7	49.5	5.8	19.2	6.5	8.8	10.2	100.0
Total Diet[1]	50.0	2.9	27.2	7.7	6.6	5.6	100.0
Vitamin A :							
Husband	34.9	6.7	—	—	58.4	—	100.0
Wife	21.6	7.8	—	—	70.5	0.1	100.0
Child 7—12	18.4	11.5	—	—	70.0	0.1	100.0
Child 5—7	14.1	12.1	—	—	73.7	0.1	100.0
Total Diet	21.1	10.0	—	—	68.8	0.1	100.0
Vitamin B_1 :							
Husband	25.2	5.0	41.4	22.4	4.9	1.1	100.0
Wife	18.5	9.6	43.4	17.3	6.5	4.7	100.0
Child 7—12	19.6	16.7	31.8	20.3	7.6	4.0	100.0
Child 5—7	21.3	23.8	25.5	16.1	8.5	4.8	100.0
Total Diet[1]	21.0	12.5	37.1	19.5	6.6	3.3	100.0
Vitamin C :							
Husband	0.1	4.1	—	61.1	34.7	—	100.0
Wife	0.1	8.5	—	50.7	40.7	—	100.0
Child 7—12	1.8	12.0	—	48.9	37.3	—	100.0
Child 6—7	2.4	16.7	—	37.8	43.1	—	100.0
Total Diet	1.1	9.8	—	51.1	38.0	—	100.0

[1] Including in Group (*c*) nutrients derived from 14 oz. of bread not allotted to individual members.

two older children obtain 61 per cent of their total intake of calcium and the younger child 69 per cent of his intake. We have assumed that most of the family's cheese ration goes to the father; but a look at the figures in Table VII makes it clear that even if the children were given their full allowance of 2 ounces of cheese per child per week instead of only one ounce, it would not bring about a very substantial rise in their intake of calcium. It seems doubtful whether they could digest much bigger helpings of fresh vegetables, or of bread and flour. Moreover, if they ate more of these two latter foods, the calorific supply available to the two adults would fall dangerously low. It is

TABLE VII

Relative Intake of Calcium from Diet A

	Husband	Wife	Child 7—12	Child 5—7
	%	%	%	%
All Milk[1]	25.1	40.0	61.3	69.3
Cheese	17.0	7.7	3.6	4.1
Tinned Herrings ...	4.1	4.7	1.8	1.0
All Eggs[2]	1.3	0.7	0.8	0.7
All Meat and Bacon ...	1.1	0.6	0.6	0.5
Bread and Flour	31.2	27.5	15.8	10.2
Haricot Beans	3.8	3.4	2.0	1.8
Dried Peas	1.5	1.1	0.7	0.3
Potatoes	3.3	2.1	2.0	1.2
Other Vegetables ...	8.0	8.2	7.4	7.0
Dried Fruits	1.7	2.0	2.1	2.1
All other Foods ...	1.9	2.0	1.9	1.8
Total	100.0	100.0	100.0	100.0

[1] Including condensed milk. [2] Including dried eggs.

TABLE VIII

Indices of Consumption of Rational Foods in Table IV

	Ration p. Person p. week	Indices (Ration=100) Husband	Wife	Child 7—12[1]	Child 5—7
Meat, fresh	*1s. 0d.*	147	88	88	88
Corned Beef	*4d.*	188	63	109	31
Bacon	2 oz.	300	50	50	50
Margarine	6 oz.	117	117	100	67
Cooking Fat	1 oz.	200	100	75	50
Sugar } Jam }	12 oz.	54	129	117	83
Cheese	2 oz.	250	100	50	50
Eggs, shell	0.8 egg[2]	250	63	63	63
Milk, Adult	3 pt.	83	117	—	—
Milk, Child	3½ pt.[3]	—	—	100	100
Adults { Points	8	89 } 146[4]	80 } 118[4]	—	—
{ B.U.s	9	196	152	—	—
Child 7—12 { Points ...	8	—	—	91 } 83[4]	—
{ B.U.s ...	11[5]	—	—	76	—
Child 5—7 { Points ...	8	—	—	—	73 } 63[4]
{ B.U.s ...	9	—	—	—	53

[1] Two children in this group. [2] Approximately.

[3] Excluding 1⅔ pt. of school milk per child.

[4] Taking the combined allowance of ' points ' and ' B.U.s ' as 100.

[5] Average: Child 7—11, 9 ' B.U.s '; child 11—12, 13 ' B.U.s '.

therefore impossible to suggest any addition to the children's food that, under the present conditions, and allowing for the general feeding habits, would result in a considerable increase in their intake of calcium.

(7) *Food Consumption and Rationing*

In Table IV we have shown what we think would be considered ' fair ' shares of the several members of the family in diet A. On the whole, these shares would provide for each of them a nutritional intake probably as well-balanced as can be expected in practice. This balancing, however, has been achieved only by a distribution of the family rations according to needs—and, to some extent, custom. Most housewives will obviously act in this way, at least in principle. In Table VIII, the quantities of rationed foods in the individual shares, as given in Table IV, are measured by means of indices, the rations of each individual being equated to 100. The individual allowances of ' points ' and ' B.U.s ' are dealt with first separately and then—since for diet A some ' points ' have to be exchanged into ' B.U.s '—together, the total number of ' points ' and ' B.U.s ' in the ration book of each member of the family being taken as 100. The indices bring out very strikingly the fact that the husband and the wife would be consuming considerably more of the rationed foods than their personal rations.

The amount of eggs in shell allotted (in Table IV) to the husband, may be considered somewhat arbitrary, but the inquiries we made indicated that frequently most of the family's ration of shell eggs is used for the husband's breakfast. This was done especially by housewives who also bought dried eggs, which they made up into egg dishes for themselves and the children. In any case, had we assumed the husband to consume fewer eggs in shell we should have had to increase his share in the dried eggs included in diet A. This would have reduced his index of consumption of eggs in shell and raised that referring to foods rationed on ' points '.

The quantities of rationed foods in the combined shares of husband and wife in Table IV over and above their personal rations are given in Table IX.

TABLE IX

Surplus Consumption of Rationed Foods in Combined Shares of Husband and Wife, Table IV

	Quant.	Calories	Protein gm.	Calcium mgm.	Iron mgm.	Vit. A I.U.	Vit. B_1 microgm.
Surpluses obtained :							
Meat, fresh	4.8 oz.	288	16.3	10	3.4	58	96
Corned Beef	1.6 oz.	110	11.4	5	5.0	—	—
Bacon	3.0 oz.	387	6.6	9	0.9	—	330
Margarine	2.0 oz.	436	—	2	0.2	1,136	—
Cooking Fat	1.0 oz.	253	—	—	—	—	—
Cheese	3.0 oz.	351	21.3	690	0.6	1,117	27
Eggs, shell	0.9 egg	70	5.6	27	1.2	450	67
Bread	76.4 oz.	5,348	183.4	1,299	22.9	—	3,209
Total		7,243	244.6	2,042	34.2	2,761	3,729
Deficiency :							
Sugar	2.0 oz.	216	—	—	—	—	—
Net Surplus :		7,027	244.6	2,042	34.2	2,761	3,729
Of Total Intake :		*18.5%*	*18.3%*	*16.1%*	*15.5%*	*5.6%*	*16.6%*

The foods rationed on ' points ' in their shares required about 13.5 ' points ', leaving 2.5 ' points ' per week available for conversion into ' B.U.s '. We have allowed for this. The ' surplus ' of bread shown in Table IX thus represents the *net* ' deficiency ' in their combined personal rations. It will be seen that this deficiency of bread alone would make their calorific intake fall short by 14 per cent of that given in Table V. In order to replace the calorific intake from all the ' surplus ' derived from the children's rations in the combined shares of husband and wife, 4 pounds of oatmeal or 4½ pounds of barley flakes would have to be consumed by them.

TABLE X

Relative Outlay on ' Human Needs ' Diet A.

	Rationed Foods			Unrationed Foods				Total Outlay
	Group (*a*)	Group (*b*)	Group (*c*) *excldg. potatoes*	Potatoes	Group (*d*)	Group(*e*) *excldg. condmts.*	Condiments	
November 1946	46.4	15.1	13.9	4.6	7.4	11.7	0.9	100.0
April 1947 ...	50.0	14.3	12.1	4.1	11.2	6.0	2.3	100.0

In both November, 1946, and April, 1947, about three-quarters of the total outlay on a ' human needs ' diet would have been required for the purchase of rationed foods. The actual figures calculated for our schedules in November and April are 75.4 per cent and 76.4 per cent respectively (Table X).

(8) *Conclusion*

The outstanding point in this survey is the rise in the outlay that was required for the purchase of an adequate diet in April, 1947, as compared with November, 1946. The cost had increased from 38s. 4¾d. to 43s. 2d., *i.e.*, by 12½ per cent. As compared with the cost of a diet of about the same nutritional and culinary value in April, 1941—when our inquiry into the cost of a ' human needs ' diet was undertaken for the first time—the actual rise amounted to 31 per cent; if the outlay on the children's milk at school is omitted from the base figure of total cost—since this milk has been supplied free since August, 1946, but until then would have cost the family 7½d. per

TABLE XI

Index of Cost of ' Human Needs ' Diet

(April 1941=100)

	April		November	
	actual	corrected[1]	actual	corrected[1]
1941	100	—	99½	—
1942	103	—	101	—
1943	106	—	108	—
1944	112½	—	100	—
1945	109	—	110	—
1946	113½	—	116	119
1947	131	133½		

[1] Outlay in April, 1941, *minus* 7½d. spent on school milk, equated to 100.

week—the index rises to 133½ for April, 1947, as compared with April, 1941 (Table XI). The Ministry of Labour index of the cost of food has only fluctuated slightly during these six years, and it was about the same for April, 1947, as it had been for April, 1941.[1]

Cheap fish, meat, and green vegetables, were very scarce in April, 1947. Bread and flour were still rationed, and the supply of rationed calorific foods for adults fell far below their calorie requirements. Two fairly inexpensive calorific foods—oatmeal and barley flakes—could, however, be bought freely. It was therefore possible for a housewife to obtain enough food to prevent her family from going hungry, although it may sometimes have been difficult to induce everyone to eat his full share of the meals she was able to prepare with the foods that were available.

T. SCHULZ.

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[1] On April 1st, 1947, it was a little over 1 per cent below the figure for April 1st, 1941.

ERRATUM BULLETIN, Vol. 9, No. 5,

Working Class Income and Household Expenditure. Page 164, line 21, read : *earners*' personal expenditure (instead of ' owners' . . .)

NOTES ON SOME BALANCE OF PAYMENTS FIGURES

This article reviews developments in the balances of payments of certain countries in recent years. The countries surveyed—Australia, New Zealand, Argentina and Eire—include two British Dominions of the primary producing type, a foreign primary producing country with its own characteristics, and an agricultural country of a different type with special external relations. All are intimately connected with Great Britain by trade and finance, and during the past few years have accumulated (though in varying degree) large sterling balances. Furthermore, since all are to a great extent dependent on external trade, their balances of payments are of high importance in the national economy.

The Impact of the War on Australia's External Balance

Estimates of the Australian Balance of Payments, prepared by the Commonwealth Statistician, are given in Table I for the years 1936–37 to 1945–46.

The figures show the extent to which the balance on current account was unfavourable for several years in succession from 1937 to 1943. For this two factors were mainly responsible : (i) the reduction in the trade balance from the high levels of 1936–37 ; (ii) the growth of Government overseas payments for Defence purposes.

The first of these may be briefly discussed. Taking the war years as a whole, the figures show no general increase in exports, which after 1941 were appreciably lower than in the years just before the war. Volume was maintained fairly well at first but later averaged about 20 per cent below pre-war level. Bulk sales to the United Kingdom Government helped to sustain export prices, which rose steadily but not steeply; in 1944–45 they were only 32 per cent higher than before the war but since then there has been a further considerable advance.

Import prices increased continuously in the early stages of the war and rose much more than did export prices, although fairly stable after 1943. The volume of imports was heavily and continuously reduced, especially during the later war years, and from 1943 to 1945 was less than half the pre-war total. Imports by value were after 1939–40 below the pre-war average.

The favourable trade balance (excluding trade on Government account) moved in close association with exports from 1937 until after 1942, when restriction of imports caused it to expand; as often in Australia, it fluctuated considerably, but for four out of the six war years was unusually high. Including trade on Government account, very heavy Defence imports involved a large adverse balance.

Some of the invisible items of the current balance have varied little : thus the figures for interest on both Government debt and private capital have moved only within fairly narrow limits; the former has lately been much reduced by debt repayment and conversion operations. Credits from gold

TABLE I

AUSTRALIA : Balance of Payments (£A millions).

Year	Exports	Imports	Balance	Gold	War Debits or Credits	Misc. Credits	Freight and insurance	Govt. interest	Private interest etc. (net)	Balance on current account	Govt. Overseas borrowing	Private Capital inflow	Increase in international reserves
				+			—	—	—				
1936–37	148	101	47	11	—	4	14	27	14	7	—1	27	33
1937–38	141	127	14	13	—	5	17	27	16	—28	6	14	—8
1938–39	122	112	10	15	— 2	6	15	27	17	—30	5	1	—24
1939–40	151	126	25	18	—10	8	25	27	16	—27	4	34	11
1940–41	150	108	42	16	—32	9	21	28	16	—30	14	26	10
1941–42	128	105	23	15	— 7	10	24	28	15	—26	—11	25	—12
1942–43	113	71	42	10	—18	11	18	27	14	—14	— 1	28	13
1943–44	132	72	60	7	62	11	16	27	14	83	—22	31	92
1944–45	132	84	48	7	63	11	16	26	14	73	—20	—25	28
1945–46	148	111	37	7	44	11	22	24	15	38	—43	21	16

TABLE II

NEW ZEALAND : Balance of Payments (£NZ millions).

Year	Exports	Imports	Balance	Private Interest, etc. (a)		Government Receipts on war account (net)	Government Payments (b)	Balance, all items	Overseas Funds of N.Z. Banks (net) (c)
				—	+				
1939–40	71.0	37.9	33.1	7.9	3.3	—	15.7	15.1	23.0
1940–41	73.3	42.0	31.3	6.7	7.7	—	23.3	8.9	29.8
1941–42	72.8	39.6	33.2	6.1	7.1	—	36.3	—2.3	30.9
1942–43	80.9	33.1	47.8	7.1	8.0	3.8	49.0	2.6	37.1
1943–44	74.1	28.2	45.9	6.1	8.1	14.2	52.9	7.6	39.3
1944–45	85.3	30.9	54.4	6.2	10.1	30.0	49.6	37.6	62.4
1945–46	108.5	36.1	72.4	7.6	13.5	16.9	88.5	5.7	98.4

(a) May include some capital movements. (b) Including imports on Defence Account, Interest on Government Debt, etc.
(c) As at end of each fiscal year (March).

production showed a large increase (which has not been maintained), as did the debit item for freight and insurance; there was also a large expansion in miscellaneous credits, which include the earnings of Australian ships and port expenditure of other ships. The chief variable factor, however, was on Defence account: here there were heavy debits for overseas expenditure during the earlier part of the war but later, from 1943 to 1946, these were more than offset by large credits. It will be seen that the surplus on current account from 1943 onwards was due more to these credits than to the expansion of the trade balance. More recently the latter, which may total about £A90 millions in 1946–47, has reasserted itself as the major operative factor.

Capital transactions are not fully known since lack of complete data precludes reliable estimates for private capital movements; the figures shown in the table under this heading are only a residual item and include also changes in the balances of Allied Governments. Government borrowing was on a limited scale during the years 1939–41 and considerable repayments of debt were effected in later years.

The large fluctuations in the trade balance and transactions connected with the war gave rise to corresponding changes in Australia's reserves of gold and overseas exchange. These in 1937 had totalled £A89 millions, the highest figure attained since 1929, but fell heavily in the next two years; they recovered only slowly after the outbreak of war, net accretions up to 1943 being no more than £A22 millions, but in 1943–44 they rose by £A92 millions and since then have increased still further. Debt operations have here been a limiting factor but the total rose to £A215 millions at the end of the financial year 1945–46 notwithstanding the repayment of £A43 millions of overseas debt during that period.

In considering whether this figure is in excess of requirements, it should be borne in mind that if account is taken of changes in price levels it is not unprecedented, since in 1929 the total was almost £100 millions sterling. It should be remembered also that the Commonwealth has still to meet heavy overseas commitments and that when supply conditions permit, imports on private account are likely to be very large. Furthermore, when overseas reserves have fallen heavily, it has usually been difficult (partly because of the fluctuations characteristic of the Australian economy) to restore them to a satisfactory level: thus after falling to £30 millions sterling in 1931, they had never up to the outbreak of war recovered to more than 70 per cent of the 1929 total and during the war it was not until 1944 that they exceeded it. It seems likely, however, that some arrangement may shortly be made fixing the level at which they will be held.

New Zealand's Balance under Exchange Control

Since the institution of exchange control in 1938 the Reserve Bank of New Zealand has been able to give a comprehensive statement of the Dominion's foreign exchange transactions: the figures for each year since 1939–40 are summarised in Table II.

The table shows no large movements in exports in the earlier years of the war: an upward movement in 1942–43 was not maintained in the following year and there was no real expansion until 1944–46. Except in 1940 and 1942, the volume of war-time exports was below the pre-war level. As in Australia, export prices were governed mainly by the terms of bulk purchase contracts with the United Kingdom and rose sharply at the beginning of the war, but although the upward trend continued, it later became much more gradual.

Imports by value were maintained up to 1942, although largely reduced in volume; subsequently, a further severe reduction in volume more than offset the rise in import prices.

For the first three of the seven years covered by the table the favourable trade balance (excluding Government imports) was very nearly stable at approximately £NZ30 millions per annum, a figure greatly above the pre-war average; from 1942–43 onwards a much larger total was recorded.

The other components of the balance of payments are not given in as much detail as is desirable: in particular, the official classification does not always permit of the separation of current from capital items. Government payments overseas increased rapidly and averaged £NZ50 millions per annum during the years 1942–45 (the high figure for 1945–46 is presumably due mainly to the repayment of large amounts of overseas debt); under this heading are included imports for Defence purposes, which totalled £NZ47 millions in 1943 and £NZ30 millions in 1944, and overseas debt service, which throughout the war was approximately £NZ8 millions per annum. Although considerable sums were received on account of expenditure by allied forces and under other inter-Governmental arrangements, these did not (as in Australia) offset net debit payments on war account. Some less important items showed little change but a contrast with earlier years has been the emergence in 1944–46 of an appreciable credit from private capital and interest and the earnings of New Zealand undertakings.

It will be seen that throughout the war, except in 1941–42, the sum of the items enumerated showed a surplus every year, generally of very small dimensions; for 1944–45, however, the figure was exceptionally large, partly from an increase in the trade balance, partly from very considerable Government receipts.

These results may be contrasted with the situation as it was before the war. New Zealand's exchange difficulties at that time are well-known: in the years 1935–37 the current balance showed a small deficit, which in 1938 rose to about £NZ9 millions, while at the same time there was some export of capital, which may have amounted to over £NZ20 millions during the four years 1935–38. The result was that during this period net overseas assets fell from over £NZ40 millions to less than £NZ7 millions, and as this movement was rapidly gaining momentum, exchange control was imposed at the end of 1938.

The immediate aim of this measure was to conserve overseas assets and to restore them to a level adequate for requirements. The figures given in the table show that the resources available for this purpose were very small until the last year of the war, the total surplus realised during the years 1941–44 being only £NZ8 millions. It was in fact found necessary in 1944 to conclude a new agreement with the United Kingdom which provided for an increase in export prices for New Zealand produce, and for certain additional payments to offset higher import prices; this arrangement was expressly designed to enable New Zealand to rebuild overseas reserves and its effects were seen in the next two years. By the end of 1946, notwithstanding heavier imports and the utilisation of large amounts of sterling to redeem debt in London, net overseas funds had risen further to £NZ104 millions.

Although the exchange position thus seems fairly secure, the New Zealand Government has decided to maintain the import licensing system. The likelihood of heavy imports when supplies are available and the rise in the price level now necessitate much larger holdings of overseas exchange than formerly; moreover, during the war the terms of trade tended to move against New Zealand and may again do so if world prices rise while New Zealand export prices are largely governed by long-term contracts with the United Kingdom. For fiscal reasons also the maintenance of a high level of overseas funds is advisable as the Government's policy is to pay off overseas debt and to undertake conversion operations when feasible.

Import licensing and exchange control are, therefore, being retained as instruments of post-war policy but restrictions have been considerably relaxed, the value of licences granted last year exceeding £NZ100 millions. Control in fact is not at present restrictive as it has been impossible to obtain all imports for which licences have been issued.

ARGENTINA'S CREDITOR STATUS

Estimates of the Argentine Balance of Payments, not given in any great detail, are prepared and published annually by the Central Bank of Argentina. Figures for the period 1939–45, with preliminary trade figures for 1946, are shown in Table III.

The table shows the amplitude of the changes in the balance on current account caused by war conditions, especially during recent years. Shortly before the war Argentine exports had fallen heavily from the high levels prevailing from 1935 to 1937 : the first effect of the outbreak of hostilities was a reduction in the volume of exports, especially severe since many needed much shipping space; the trade in grain was thus particularly affected. Export prices, however, rose very rapidly : by 1941 they had nearly doubled and by 1942 had increased almost threefold. Thus total exports by value began to increase after 1940 and subsequently rose sharply, although it was not until 1943 that they exceeded the average for 1935–37. Imports at the same time were heavily reduced by reason of restrictions in other countries and, although import prices rose, the contraction in the value of total imports was very large, especially in 1943-44. The favourable trade balance expanded accordingly from 1941 onwards.

TABLE III
ARGENTINA : Balance of Payments (million pesos).

Year	Exports	Imports	Balance	Public debt interest	Interest on private capital	Freights, port dues, etc.	Balance on current account	Repatriation of public debt	Capital inflow	Gold and exchange held by Central Bank (*a*)
				—	—	+				
1939	1,573	1,223	350	142	289	33	— 56	—	66	1,395
1940	1,439	1,272	167	153	222	35	—138	32	79	1,329
1941	1,533	1,086	447	138	267	55	172	21	325	1,542
1942	1,690	1,063	627	153	327	111	303	103	235	2,097
1943	2,045	799	1,246	122	250	205	1,092	144	29	3,200
1944	2,296	887	1,409	132	351	202	1,090	174	— 43	3,828
1945	2,467	1,008	1,459	96	287	192	1,255	7	—112	4,674
1946	3,937[1]	2,330[1]	1,607[1]	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	5,827

(*a*) As at December in each year. (*b*) Not available. [1] Unadjusted figures, not directly comparable with preceding years.

TABLE IV
EIRE : Balance of Payments (£ millions).

Year	Exports	Imports	Balance	Interest, etc.		Emigrants' Remittances	Pensions (from U.K.)	Other credits (net)	Balance, all known current items	Net additions to Sterling Assets of			
										Govt.	Central Bank	Commercial Banks	Private investors (*a*)
				—	+								
1939	26.9	43.4	—16.5	7.0	12.7	2.8	2.4	1.8	—3.6	—0.7	0.9	5.1	—1.2
1940	33.0	46.8	—13.8	7.0	14.0	2.1	2.6	—0.1	—2.3	—1.2	7.0	3.7	—3.7
1941	31.8	29.5	2.3	8.4	13.3	3.6	2.9	—0.6	13.0	—	2.4	14.9	—1.8
1942	32.7	34.6	— 2.0	8.7	13.6	6.5	3.0	4.1	16.5	6.2	5.4	13.9	1.2
1943	27.5	26.1	1.4	7.4	14.0	8.7	3.2	5.4	25.4	5.9	4.2	19.2	3.6
1944	29.6	28.2	1.4	7.9	15.1	9.3	3.9	6.2	27.8	7.3	4.6	16.6	4.7
1945	35.2	40.7	— 5.5	8.4	15.0	9.6	4.2	8.9	24.0	5.5	5.7	17.8	6.2
1946	38.8	71.8	—33.0	(*b*)		(*b*)	(*b*)	(*b*)	(*b*)	8.0	2.7	7.1	2.7

(*a*) Incomplete figures. (*b*) Not available.

Changes in the direction of foreign trade have been considerable. Prior to the war Argentine trade was predominantly with the United Kingdom and the United States but while with the former there was a large favourable trade balance, averaging 206 million pesos in the immediate pre-war years, with the latter there was for the same period an import balance of 63 million pesos per annum. As European sources of supply were cut off, imports from the United States increased and the adverse trade balance with that country rose to 182 million pesos in 1940 but Argentina then proved able to supply many articles formerly imported from Europe and imports from the United States later declined; thus after 1941 there was (until 1946) a large favourable balance of trade with the United States as well as with the United Kingdom.

The most important of the invisible items is normally that of interest on foreign capital invested in Argentine concerns : the figures here showed little change on the whole, although there were marked fluctuations from year to year, but recent developments (referred to below) should reduce this item very considerably. Interest on the public debt became relatively small as repatriation was effected and Argentina as a neutral was not involved in heavy expenditure abroad for war purposes. An important feature has been the increase in credits from freights and port dues, partly the result of the activities of the State merchant fleet, while in some years there was a certain inflow of capital, mainly from the United States, which was especially large in 1941–42.

As early as 1941 there was a considerable surplus on current account; this increased still further in the following year and for 1943–45 averaged over 1,000 million pesos per annum. The expansion was reflected in the Central Bank's holdings of gold and foreign exchange, which by the end of 1945 had increased more than threefold since 1939 and rose further during 1946.

The growth (and eventual liquidation) of a large part of these surpluses was associated with the evolution of Argentina from debtor to creditor status. By the end of 1946 almost all Government external debt had been repatriated and for some time overseas balances had been utilised also for the purchase of foreign-owned undertakings in Argentina : these included gas and waterworks companies in Beunos Aires with a capital valuation of nearly £4 millions, the United Telephone Company (purchased from United States interests for 95 million U.S. dollars) and the French-owned railways (bought for 183 million pesos). Finally, under the terms of the Anglo-Argentine Agreement of 1946, the sterling balances were wholly liquidated by the purchase of the British-owned railways for 2,482 million pesos. Moreover, the surplus on current account has been sufficient to enable Argentina also to lend abroad on a considerable scale : within the last twelve months loans or credits have been granted to Spain (750 million pesos), Chile (700 million pesos), Italy (500 million pesos) and Bolivia (250 million pesos).

The present position may be summarised as follows :

(i) Continued active demand for Argentine products and a further increase in export prices seem likely to maintain exports at high levels. A heavy increase in imports has already been recorded and a further increase may be expected as goods become available; in particular, the Five Year Plan envisages very large imports for development purposes, requirements for industry and transport alone being estimated at over 1,000 million pesos annually for some years. A high degree of official control over foreign trade and exchange has been maintained.

(ii) Excess reserves of foreign exchange have been utilised in the only way possible under existing conditions. The balance of payments has thereby been improved since foreign assets earning low interest have been used to cancel debt with relatively high interest rates; net interest in the balance of payments has thus been largely reduced.

(iii) Although there are still considerable foreign investments in Argentina, the increase in the national income arising from economic development during recent years has greatly lessened the country's dependence on foreign capital. A recent estimate of a detailed character purports to show that in the next ten years further extensive development can take place financed wholly by domestic savings.

The Importance of Invisible Items in Eire's Balance

Official estimates of the Irish Balance of Payments have been published annually for a number of years. Although of a careful and detailed character, they are admittedly incomplete, the gaps being especially notable in the capital items, where the usual difficulties of estimation are increased by the volume and variety of financial transactions between Eire and the United Kingdom. A summary of the more important items is given in Table IV.

The chief development in visible trade during the war was the disappearance of the adverse balance normal for Eire as a creditor country: from 1934 to 1939 this had averaged £18.5 millions per annum, but during the period 1941–44 exports on the whole slightly exceeded imports. This development, although partly attributable to larger exports (which, throughout the war, were above pre-war levels) was in the main the result of a severe contraction in imports, which in 1941–42 were 60 per cent, and in 1943–44, 70 per cent, below pre-war levels in volume. The volume of exports showed a heavy though not an equivalent fall. Import and export prices increased rapidly, moving generally in fairly close accord, although over the whole period the former rose slightly more than the latter. With the end of the war it became possible to import more freely and an adverse balance of £33 millions was recorded in 1946.

The invisible items in the Irish balance of payments are of particular significance and during the past few years have become even more important than formerly. Interest from external investments generally shows a high degree of stability and its increase in recent years has not been pari passu with the increase in Irish assets abroad. A less important item, that for pensions, has shown a natural growth occasioned by the war. The most striking change, however, has been the expansion in emigrants' remittances: at one time predominantly from the United States and now chiefly from the

United Kingdom, these mainly represent part of the earnings of Irish nationals in British employment and by the end of the war greatly exceeded the total net interest receivable; a prolonged labour shortage in the United Kingdom may mean the continuance of this item as an important component of the balance of payments. Noteworthy also are the considerable credits now received from tourist expenditure (not shown separately in the official classification): prior to the war this was believed to be approximately offset by the expenditure of Irish tourists abroad, but recently there has been a large credit balance (gross tourist expenditure in Eire in 1946 has been estimated at £10 millions). Sweepstakes receipts from abroad (not separately distinguished since 1936) probably declined heavily during the war. Taking all items together, a large favourable balance on current account developed during the years 1941–45.

The capital items are of considerable importance but, as noted above, data for complete estimates are lacking. Known purchases of external securities by private investors were fairly large after 1941, totalling some £16 millions for the four years 1942–45; over the same period the sterling holdings of Government funds rose by £25 millions while the addition to the sterling assets of the Central Bank and the commercial banks between 1939 and 1945 exceeded £120 millions. Much larger imports in 1946 have not involved a reduction in the banks' sterling assets, but the rate of increase has declined: in so far as these assets are the counterpart of savings deposits, they should remain at a higher level than formerly. The Central Bank's holdings are of course determined by the volume of notes issued.

The situation during the war was thus in marked contrast with earlier years when there had been a persistent adverse balance on current account, with a declining tendency in the sterling assets of the commercial banks; the Majority Report of the Banking Commission (published in 1938) suggested that this indicated a draft on savings (partly to support the standard of living) and noted other weaknesses in the balance of payments. The force of these criticisms has been lessened by later developments since invisible credits have expanded and sterling assets are now far above pre-war figures, but the size of the adverse trade balance in 1946 (probably involving the disappearance of the surplus on current account) demonstrates the vulnerable position of a creditor country when prices rise. An assessment of future prospects should accordingly take account of two important factors: (*a*) The outlook for the export trade is not altogether promising as shipments of butter and bacon ceased during the war and it seems doubtful if exportable production will now be substantially increased. (*b*) The income derived from external assets is, relative to their total, much lower than formerly, while the real value of this income has been heavily reduced by the rise in price levels.

It should be remembered also that the sterling assets of the Irish commercial banks are not primarily or chiefly exchange reserves, although available as such, but constitute in the main an important part of the banks' investments, of a semi-permanent character. It follows that the optimum total of such assets is not to be decided solely with reference to the balance of

CONCLUSION

Since war conditions must be regarded as exceptional in many respects, it is difficult to say how far recent changes reviewed here are likely to be permanent but a few remarks may be made by way of summary.

(i) For some time demand is likely to maintain both imports and exports at high levels, although in particular cases exports may be limited by larger domestic consumption of certain commodities; on a longer-term view, the continuance of Government bulk purchasing and the operation of any commodity stabilisation schemes introduced under international agreements may lessen the fluctuations in exports usually experienced in primary producing countries. It remains to be seen whether industrialisation in such countries will reduce the volume of their foreign trade or merely alter its character; the execution of post-war reconstruction schemes will certainly require large imports of some classes of goods.

(ii) A notable development has been the change in status of some former debtor nations where war conditions have enabled them to reduce or eliminate external debt. Argentina is not alone in this respect since even in the Southern Dominions, who have had to meet heavy war expenditure abroad, the same tendency may be seen, at any rate for Government overseas debt : in Australia between 1941 and 1946 this was reduced by £A97 millions and New Zealand in 1946 redeemed £NZ51 millions out of a total of under £NZ200 millions of London debt. Moreover, while cheap money and large external assets facilitate this process, the rise in the price level has materially lessened the interest burden itself. Since Government overseas borrowing for development purposes in these countries is unlikely to be resumed, service of the debt should not in the future give rise to balance of payments difficulties.

The change of status effected in this way is evidenced also by the fact that some of these countries are now in a position to lend abroad : in addition to the loans by Argentina mentioned above, the credit of £A7½ millions recently granted by Australia to the Netherlands East Indies may be noted.

(iii) In several instances invisible exports have been supplemented by the growth of various credit items : among these are the net balance on account of private capital and interest in New Zealand, the considerable miscellaneous credits in Australia, receipts from freights and port dues in Argentina and the large volume of emigrants' remittances to Eire.

(iv) The rise in prices occasioned by the war may prove to be of permanent importance. Some mention has been made of its effect on debtor countries in reducing the real burden of overseas debt and enabling repayment to be effected; conversely, a creditor country in such circumstances finds the real value of its income from abroad reduced and its balance of payments impaired accordingly. Eire has been fortunate in that this factor has been offset, at least for the present, by an expansion in other current credits.

The relative rise in import as compared with export prices which during the war seems to have marked a movement in the terms of trade unfavourable to Australia, New Zealand and Eire has not proved permanent.

(v) The increase in overseas assets should be studied with reference to the facts of each case : they may be considered excessive only after allowance has been made for changes in the price level and the terms of trade and for estimates of future imports; in this connection full employment policy, if effective, may be material as a factor maintaining demand for imports even when exports decline. It should be remembered also that part of the increase since 1939 has been merely the restoration of former levels (generally a slow process) and that large overseas reserves may obviate restrictive measures for the protection of the balance of payments. On the other hand the total formerly considered necessary may be reduced if balances of payments are improved by the elimination of rigid items such as interest on debt, and by the emergence of new credit items; this applies also if fluctuations in exports can be limited either by international action on commodity schemes or by the development of a more diversified export trade.

On the whole it may be regarded as doubtful whether the external reserves of any of the countries here surveyed are excessive : Argentina's sterling assets have now been liquidated and those of Australia and New Zealand do not seem unduly large when account is taken of the special factors in each case; as already indicated, Eire's sterling assets are predominantly an integral part of the Irish banking system.

It may, perhaps, be concluded that the changes discussed in these notes have generally tended to strengthen the balance of payments structure of the countries concerned. If this be so, the task of international institutions dealing with balances of payments may be facilitated while international monetary regulation may prove more acceptable to countries which at present distrust it.

A. R. CONAN.

TABULAR APPENDIX

EDITORIAL NOTE

Tables comparing the broad trends of production, prices and wages, the volume of foreign trade and the supply of coal for a number of European countries, the United Kingdom and the U.S.A. are given below. For some countries more up-to-date figures are available than for others. These time lags will, it is hoped, be reduced in future and the tables will be extended when more information becomes available. The index numbers are based as far as possible on 1938.

Explanation of symbols :

... the figure is not available.
( ) figures provisional or approximate.
— figure is negligible.

TABLE I

Industrial Production (*or Employment*)
Index numbers : 1938=100.

Index Numbers	1939	1945	1946	1946			1947		
				Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Industrial Production[1]									
U.S.A.[2]	122	228	191	203	204	201	211	212	212
France	...	46	81	93	89	88	89	87	87
Belgium	105	38	88	104	98	95	104	94	...
Netherlands	111	31	73	91	90	85	...	...	...
Denmark	105	79	97	103	104	105	105	104	98
Sweden	106	91	110	110	111	111	111	110	...
Norway[2]	107	69	100	108	115	108	109	119	114
Finland[2]	89	45	61	66	67	68	71	72	75
Bulgaria	106	118	122	158	141	123	99	109	...
Poland[3]	...	57[7]	79	85	93	91	...	...	...
Germany :[4]									
British Zone	...	...	31	35	35	30	28	26	30
American Zone ...	...	...	36	44	44	39	32	...	...
Industrial Employment									
Switzerland[5]	99	110	123	...	...	128	...	...	130
Great Britain[6]	100	102	99	103	103	103	104	...	103

Sources : Official Statistics. For *Belgium* : Institute de Recherches Économiques et Sociales, Louvain ; for *Sweden* : Sveriges Industriforbund ; for *Finland* : Unitas ; for *Germany* : Control Commission (British Element).

[1] Mining and Manufacturing, except Denmark (manufacturing only), Finland (export industries) and Netherlands (mining, manufacturing and public utilisties).

[2] Adjusted for seasonal variations.

[3] New index, excluding small-scale industry.

[4] 1936=100.

[5] Wage earners employed in manufacturing and buildings. Quarterly figures.

[6] Employment in manufacturing. June 1939=100.

[7] Last quarter.

TABLE II

Wholesale Prices[1]

Index numbers : 1938=100

Index Numbers		1939	1945	1946	1946 Oct.	1946 Nov.	1946 Dec.	1947 Jan.	1947 Feb.	1947 Mar.
U.S.A.	a[2]	98	134	154	171	178	179	180	183	190
U.K.	a	101	167	173	175	177	177	179	181	181
	b[3]	91.5	138	142	144	146	146	148	149	149
France	a	105	375	648	824	806	842	867	882	850
	b	92	(275)	190	241	235	246	254	258	248
Holland	a	102	177	245	255	258	259	261	262	...
	b	99	(122)	169	175	177	178	179	180	...
Switzerland	a	104	206	201	203	204	204	204	205	206
	b	103	...	204	207	208	208	208	209	210
Sweden	a	103	173	168	162	170	172	175	175	176
	b	98	...	173[5]	179	188	190	193	193	194
Denmark	a	105	190	188	197	198	198	200	201	200
	b	98	...	180	188	189	189	191	192	191
Norway	a	102	177	168	170	172	173	171	171	172
	b	97	...	138	140	141	142	140	140	141
Finland	a	106	386	605	634	634	639	635	640	669
Czechoslovakia	a	115	173	295	304	312	313	313	310	312
	b	114	...	170	176	180	181	181	179	180
Italy	a	...	...	...	3,176	3,356	3,638	3,690	3,815	...

[1] Prices expressed in national currencies and in U.S. dollars at official rates.
[2] a=in national currency. [3] b=in U.S. currency.

TABLE III

Wages

Index Numbers[1]	Average 1939	Average 1945	Average 1946	1946 Mar.	1946 Oct.	1946 Nov.	1946 Dec.	1947 Jan.	1947 Feb.	1947 Mar.
U.S.A.[2]	101	163	173	165	181	182	183	184	186	188
United Kingdom[3] ...	...	149	162	157	164	164	165	165	165	165
Switzerland[4] ...	100	146	160	159	...	166	...	...	170	...
France[5]	103	369	477	...	477	...	...	...	...	...
Netherlands[6] ...	100	131[7]	163	161	165	165	165	165	166	165
Czechoslovakia[8] ...	100	182	301	300	301	301	301	301	301	301

[1] Base periods : U.S.A. and France : 1938=100 ; United Kingdom : September, 1939=100 ; Switzerland : Jan.–August, 1939=100 ; Netherlands ; 1938–9=100 ; Czechoslovakia : March, 1939=100.
[2] Average hourly earnings in manufacturing.
[3] Weekly wage rates ; Ministry of Labour (all industries).
[4] Hourly rates in industry ; quarterly figures.
[5] Hourly rates of unskilled workers in industry. The annual figures refer to October.
[6] Hourly rates in industry. [7] Revised figure. [8] Hourly rates in manufacturing.

TABLE IV

Foreign Trade

Volume Index (Deflated Values : 1938=100)

Index Numbers		1939	1945	1946	1946 Oct.	1946 Nov.	1946 Dec.	1947 Jan.	1947 Feb.	1947 Mar.
U.S.A.	Imports ...	115	129	147	128	150	155	166	126	...
	All Exports ...	105	184	190	121	215	237	233	239	...
U.K.	Imports ...	97	62	69	...	...	72[1]	69	62	70
	Exports ...	94	46	99	...	...	111[1]	112	92	98
France	Imports ...	88	34	112	112	87	100	97	112	...
	Exports ...	99	10	43	52	66	75	66	84	...
Switzerland	Imports ...	117	31	104	114	130	136	120	119	142
	Exports ...	96	57	101	120	117	116	103	102	119
Denmark	Imports ...	98	21	86	112	94	102	63	...	...
	Exports ...	101	32	60	74	74	79	69	...	...
Poland[2]	Imports ...	...	97[2]	159	...	...	101[3]	...	...	...
	of which % *UNRRA* ...	...	*81*[2]	*78*	...	...	*61*[3]	...	...	...
	Exports ...	...	17[2]	34	...	...	32[3]	...	...	...
Sweden	Imports ...	109	21	67	82	86	83	92	83	...
	Exports ...	106	56	78	88	81	87	81	43	...
Norway	Imports ...	111	46	78	94	113	162	114	110	...
	Exports ...	108	19	61	64	72	63	72	74	...

[1] Average of fourth quarter. [2] Average of third and fourth quarters. [3] Fourth quarter.

TABLE V

COALMINING AND SUPPLIES

A. *Hard Coal. Output and Employment.*

Monthly figures or averages.[1]

	U.S.A.[2]	U.K.	West Germany[3]	France.[2]	Belgium	Holland	Poland	Czechoslovakia
Employment ('000)[4]								
Av. 1946	...	699	235	313	158	34	182	55
1947 Jan	...	694	253	319	165	37	191	61
Feb.	...	697	278	320	168	37	186	63
March	...	703	281	331	167	38	196	62
April	...	710	281	330	167	34	195	...
April as % of 1935–38	...	92	89[5]	147	121	112	132	146[6]
Output (Mill. metr. tons)								
Av. 1946	44.5	15.9	5.1	3.9	1.9	0.7	3.9	1.2
1947 Jan.	58.1	15.1	6.4	4.6	2.1	0.8	4.5	1.5
Feb.	49.8	15.4	6.3	4.3	1.9	0.8	4.1	1.3
March	54.5	19.5[12]	6.9	4.6	2.2	0.9	4.8	1.4
April	41.3	15.7	5.4	4.2	2.2	0.8	4.7	...
April as % of 1935–38	121	83	45	109	92	74	94[7]	127[6]
Output per manshift (tons)[8]								
1946 Dec.	...	1.04	0.94	0.61	0.56	0.98	1.15	0.98
1947 Jan.	...	1.06	0.98	0.62	0.58	0.99	1.17	1.07
Feb.	...	1.06	0.97	0.62	0.58	1.08	1.06	1.10
March	...	1.06	0.96	0.62	0.59	1.01	1.17	1.10
March as % of 1935–38	...	93	59[9]	73	76	57	68	80

B. *Production of Lignite*[10].

Monthly figures or averages.

Thousand metric tons	Germany		Czechoslovakia
	West Zone	East Zone	
Average 1946	4,224	9,081	1,623
1946 Dec.	4,284	8,888	1,564
1947 Jan.	4,510	8,708	1,835
Feb	4,450	...	1,677
March	4,934	...	1,893
March as % of 1935–37 ...	103	...	139

C. *Total Imports of Solid Fuels including Bunkers* (*Ton for Ton*).

Monthly figures or averages.

Thousand metric tons	1946		1947				April as % of 1935–38
	Monthly average	Dec.	Jan.	Feb.	March	April	
France...	867	689	725	627	912	1,020	51
Belgium	262	167	246	221	368	354	67
Holland	268	142	281	225	385	369	53
Luxembourg ...	154	138	155	139	150	169	66
Norway	157	77	135	112	170	148	58
Denmark	314	210	263	205	185	315	67
Sweden	287	246	261	108	100	220	34
Switzerland	128	133	170	127	192	160	59
Italy	471	306	350	568	505	642	58
Finland	68	43	59	9	5	...	3[6]
Portugal	48	26	46	56	81	69	64

D. *Exports of Solid Fuels excluding Bunkers* (*Ton for Ton*).

Monthly figures or averages.

Thousand metric tons	1946		1947			March as % of 1935–38
	Mthly. average	Dec.	Jan.	Feb.	March	
U.S.A.	4,105	2,450	3,520	3,340	...	299[11]
Thereof to Europe	1,370	963	1,491	1,589	2,044	...
U.K	385	189	210	127	30	1
West Germany	1,089	885	659	500	953	34
Poland	1,277	1,387	1,546	1,044	770	...
Czechoslovakia	55	93	104	93	114	34[5]
France	32	37	42	41	35	35
Belgium	78	79	118	111	139	27
Holland	36	30	41	22	20	4

Source : European Coal Organization ; United Nations, Monthly Bulletin of Statistics.

[1] Calendar months. [2] Incl. a small quantity of lignite.

[3] British and French zones (see also footnote 8).

[4] Underground and surface workers, excluding office staff.

[5] Against average 1935–37. [6] March 1947.

[7] April output 1947 compared with pre-war output in the territories now within Polish boundaries.

[8] Overall. The figures for Germany refer tc the British zone only.

[9] Eighty-three per cent in the French zone.

[10] Conversion rate for Germany : 9 units lignite=2 units coal ; for Czechoslovakia : 17 units lignite=10 units coal.

[11] February against monthly average 1939. [12] Five weeks.